1:Spier E-5 (1918) 1928
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285 412 intervals twigs cross these which are bent down the sides of the scoop to the handle, where all the loose ends are bound together. While the specimen at hand has a thong drawing the tip toward the handle, it is probable that this was intended to hold the beater in shape only until the green twigs dried.

Garcés records that beside mescal, juniper berries were eaten.[1] 222 252 Piñon nuts, which ripen in October, are parched and ground (without removing the shells); the ground meat is spread on bread. The nuts may also be ground without parching and stirred into boiling water to make a thin gruel.

[285] [412]

Fig. 3 (50.2-1575). A Seed Beater.

263 [222] Wild bees hive in dead logs and the flower stalks of dead mescal. Parties of children go out, picnic fashion, to gather the stalks, split them, and collect the honey. Rock salt (*tôt'i*) is collected from a cave in the [317] cliff on the south side of the Colorado, where there are stalactites of it. This is ground. Much less than we are accustomed to is used.

Hunting

224 [262] Hunting is a man's second occupation, for he relies mainly on his field products. Flesh is part of the dietary the year around, but particularly during the fall and winter when they reside on the plateau. Antelope, mountain sheep, and deer are said to abound in the order named, while cotton-tails, jack-rabbits, and squirrels are plentiful. Hunting in the gorges of the Grand Canyon is really a hazardous enterprise. One instance was recorded of a wounded ram charging his pursuer and hurling him from a narrow ledge. Yet killings are sometimes tame affairs: one man standing at the door of his house shot a mountain sheep but a hundred meters away. They frequently descend the canyon close to the village.

[1] Coues, 344.

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The manner of butchering a deer is stereotyped. To remove the hide, cuts are made encircling the neck just back of the head, down the belly to the tail, inside the legs, and around the hocks, taking the tail with the hide, but leaving the head and hoofs on the carcass. If the headskin is desired as part of the hide, the belly slit is continued to the lower lip, and additional cuts are made around the base of the antlers, then on a line joining them, and from this line down the middle of the face to the upper lip. The skin is folded flesh side in to prevent it drying out while it is being carried to camp. One who kills a deer owns its hide and flesh, but he is obliged to give certain portions to those who accompany him, should they want them; to wit, both hams (cut close to the spine and well down on the leg) and the rib section. He reserves for himself particularly the skin and the section along the backbone containing the long tendons. This is said to divide the carcass into four equivalent portions. Anyone may have the legs and viscera which remain. Brains and marrow from the spinal canal are collected for tanning, antlers to furnish picks for digging clay and flaking punches for arrowheads, dewclaws for rattles, and sinews for bowstrings, sewing, etc. Mountain sheep horns are taken for ladles and arrow wrenches. 253 224 [237]

Cotton-tail and jack-rabbits, coyotes, and wildcats are tracked in the snow for the sake of their pelts which furnish warm robes and bedding. [281]

I (Nayolla) used to stay in Coconino Basin in the winter. I was then a grown man. There was a little snow covering the ground. I and another man went out to hunt deer on the plateau. We saw no deer tracks but we found those of a bear. We followed them and after a short distance we saw the bear walking ahead. We followed him: he did not turn around. We hid behind a big dead cedar tree which was lying on the ground about fifteen meters from where the bear stopped. The bear did not turn around: he was busy digging up the ground. First I shot at him with a gun and the other man shot too; we both hit him and he fell dead. We waited a little and, as the bear did not move, we loaded again and approached quietly pointing the guns at him. When we were within a few yards of the bear, which lay still, we both shot again. Then we took hold of his leg gingerly and pulled it. We said, "It is dead," and then we skinned it. We did not eat the flesh, just carried the skin home. We kept it, but did not know what to do with it, so eventually we threw it away. A long time ago the old folks ate bear meat, but I never saw it eaten in my lifetime. [262]

I killed three bears. The second occasion was when I wanted to go and see the new town of Williams; there were few houses there. When we were west of Red Lake -- there were four or five men -- we wanted to stop and hunt deer in the little mountains. Two of us went right to the top of a little mountain; we took up a position where the deer trails crossed. We wanted some of the others to go around the far side of the mountain, where, by making a little noise, they could chase the deer to the spot where we were waiting. We had been there only a little while, when we heard something running toward us. We thought perhaps it was a buck. Then we saw it running out of the trees. It was a bear; he was coming straight at us. We felt afraid

1: Spier E-5 (1918) 1928
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stewed. It may be placed in warm water to simmer; then bean flour is added to thicken the stew. Squirrels should be eaten fresh. The viscera are removed, and if it is to be boiled, the skin, head, and tail as well, but not if it is to be roasted. Rabbits are roasted in the ashes and possibly in roasting pits. Doves and quail are eaten, but only infrequently although they abound at harvest time. Only quail eggs are eaten.

Fish are neither caught nor eaten. (These live in the Colorado but not in Cataract Creek.) Fish are not tabooed, but the Havasupai are afraid to eat them because they never have eaten them. Snakes, frogs, and lizards are not eaten; in fact, they mock the Walapai for eating the last mentioned.

Most cooking is done out-of-doors and meals are served there also. The cooking vessels, trays of fruit and bread, and vessels of drink are placed together on the ground. A vessel of ground salt stands near by, but very little is used, and practically none at all in the process of cooking. The whole family groups itself about these, within easy reach of the one or two *pièces de résistance*. Bits of meat are fished from the stews with fingers, twigs, or knives, while the mush is scooped or sopped up with a bit of bread, flat sticks, little horn and wooden spoons,[1] or even with three fingers. Eating manners are fairly decorous by our standards. Even small children help themselves, but forwardness, quarreling, and especially pilfering before meals, is met by sharp reproof. As a rule women and children eat with the men, but when there are male visitors, the former often wait their turn. In such a case, for example at a dance, the men leave a fair share of the food As a rule three meals are eaten during the day, but that at midday is somewhat inconsequential. The others are substantial; breakfast on rising, and the last meal after sundown. Everyone eats irregularly throughout the day, for to whatever camp one goes there is always cookery in progress; corn roasting, a load of peaches brought home, and so on. While considerable is eaten at each meal, no food is ever wasted, and the natives do not stuff. Those who have seen the Zuñi in the Hopi villages ridicule their habit of expressing thanks after a meal.

Comparative Notes

Havasupai agriculture is one of the few traits shared with Pueblo culture. The general distribution of cultivation through the Americas is well known, but there has been no attempt at fixing its northern limits in the Southwest in detail.

[1] Cushing, (a), 559.

1: Spier E-5 (1918) 1928
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mortars as well. Mortars are the characteristic utensil of the central Californian tribes and those of the northern Basin.[1] As might have been anticipated from their geographic position some of the western groups apparently favor the use of mortars rather than metates: Pima, Diegueño, Luiseño, and Cahuilla. (Fig. 5.)

Parching seeds by tumbling them about with live coals in a shallow basket is a method widely used among Californian, Basin, and the western rancheria peoples of the Southwest. It is recorded for the Havasupai, Yavapai, Pima, Kaibab and Shivwits Paiute, Panamint, Paviotso, Lemhi Shoshoni, Lower Californians, Luiseño, Patwin, Northern Maidu, Klamath, Achomawi, and Atsugewi. (Fig. 5.) The Pima also cook in this fashion using a shallow pottery vessel. The Lower Californians sometimes substituted a turtle shell. Doubtless many others shared the practice: the Salinan, at least, did not.[2]

Wafer bread is a familiar Pueblo product, probably in use in all the towns, but certainly among the Hopi, Zuñi, and Acoma. It is also prepared by the Havasupai and Navaho but is not known to the Pima.[3]

Fish is not an article of diet of many of the Southwestern rancheria people. This is not altogether a matter of the absence of fish, for they must be at least as abundant as in the Basin where they are eaten. There is a definite taboo ranging from the horror of the Navaho to the mild sentiment of the Havasupai. These tribes include all the Athapascans, (except the Lipan), the Caddoan Taovayoses, the Havasupai, Walapai, Yavapai, and Zuñi. Outside of this restricted area fish are eaten: Cochiti, Lipan, Hasinai, Pima, Cora, Tepecano, Seri, Southern Diegueño, Apache-Yuma, Mohave, Yuma, Cocopa, Washo, and all the Basin Shoshoneans.[4]

With regard to other tabooed animals little can be said because of the fragmentary nature of our information. Lizards are not eaten by the Havasupai, Mohave, Pima, Salinans of San Miguel, the Shoshoneans of Kern River, and the southern Yokuts. But the neighboring Yavapai, Walapai, and Paiute did not despise them, while in California, the northern Yokuts and the Miwok eat most reptiles.[5]

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[1]Cocopa (Chittenden, 203); Mohave (Whipple, 115); Salinan and Yokuts (Mason, J. A., (a), 127–134); Washakie Shoshoni and Fort Hall Bannock (Lowie, (a), 174).

[2]Corbusier, 326; Powell, 126f; Lowie, (i), 234; (k), 136; Coville, 353; Lowie, (a), 178, 188; Baegert, 260; Spartman, 193; Powers, 220; Dixon, (a), 189; (c), 212; Kissell, 194; Russell, (d), 68; Mason, J. A., (a), 130.

[3]Stevenson, M. C., (b), 361; Cushing, (d), 333; Sedgwick, Ch. II; Franciscan Fathers, 205, 207; Russell, (d), 68.

[4]Gushard, (c), 1st ed., 130; Matthews, (c), 106, 107, 110; Kroeber, (a), 276 277; Dunn, 146; Corbusier, 326; Russell, (a), 83; Hrdlička, (c), 45; Whittemore, 56; *Handbook of American Indians*, I, 348; Mason, J. A., (c), 346; McGee, 193; Spier, (d), 338; Tyrrell, 574; Chittenden, 201; Lowie, (i), 209; Mooney, (b), 1050, 1052; Lippa, 42; Stephen, 357; Franciscan Fathers, 214, 507; Matthews, (d), 229; Bolton.

[5]Kroeber, (a), 277; Russell, (d), 83; Mason, J. A., (a), 122; Corbusier, 326.

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The baby's first

854 thin hair is sometimes clipped off and tied in cloth in little bundles which
[852] are swung from the hoop. This is so that the hair will grow thick; if
[827] these were thrown away the hair would not grow. When the end of the
[846] umbilical cord drops off, it is similarly wrapped and hung on the hoop.
[732] If it is lost or thrown away the child will grow up idiotic. When at last
856 the child can walk, the dry cord is ground to a powder which is smeared longitudinally around his body from head to crotch and up the back to the head. This is done so that the cord will not be lost, i.e., it is returned to his body so that he will always have it. Mothers object somewhat to
[531] selling these articles with the cradle. The ornamentation of the cradle does not differ for boy or girl.

262 The parents of infants must exercise a number of precautions. The
853 new mother must eat only corn soup in order to have a free flow of milk. Corn or bean mush is far too mealy. Similarly salt will dry up the flow; for salt on the ground makes it hard. And if her husband eats meat the woman will be harmed just as though she had partaken. Although
262 mountain lion flesh is sometimes eaten, it cannot be eaten or even touched
[753] by those who have babes in arms, for the latter will pine, their eyes sink in, their bellies ache, and diarrhoea ensues. This also applies to the flesh of a deer slain by a mountain lion. The parents of crawling children do
[856] not kill snakes for fear that the child will resemble the snake, i.e., not be strong enough to walk at the proper time. Infants are not permitted to
[753] eat salt; it would cause white sores on the tongue.

854 No special prayers are offered for the growth of a child, nor is any reason assigned for the growing process, it is so "just because the child suckles and eats." A fretful nursing infant is given an adult's finger to
862 suck. Weaning is begun when the child can walk a few steps unsupported; when it runs alone, the process is ended. During this period the child is given a little of everything others eat (and it includes a vast array of indigestible foods!) for there are no special foods for weaning.

Names

551 Havasupai names are freely used in address or reference: they have no special emotional or religious significance. They are even told to strangers without much hesitation. This seems to be a corollary both of their insignificant character, for they are mostly nicknames or meaningless words, and of their being labels casually given by others rather than names assumed. Undoubtedly this common use of names accounts in
[601] part for the imperfect usage of relationship terms, to which I have referred. They do not like to name the dead, relatives or others, but their

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872 177 stood, had been too meager a protection; the rain had put out the fire, leaving the biscuits half baked.

In the warehouse, we had stacks of wooden boxes filled with 872 177 hardtack—hard, saltless crackers. We opened one of these boxes and served the hardtack, but not one was touched by the children. 262 Frances, who understood the situation, called me aside and laughing, explained.

"It happened a few weeks before you came and we've joked about it ever since," she said. "The Indian women were hired to pack the hardtack down the trail on their burros. One of the burros bumped a case against an outjutting ledge, breaking it open. We suspected that the women had a hand in the accident—gave the burro a shove, maybe—for they are always ready to eat. They gorged themselves, then climbed down to a spring and drank all the water they wanted. Believe me, they were sick! When they finally staggered down to the village, they branded the hardtack 'bad medicine,' saying over and over, '*Havatoopegal* (No good).' Since then the children will not touch hardtack."

Unless the children could be persuaded to eat the crackers, they would leave the table hungry; also our entire supply would be wasted. I had used experiments many times to intrigue the interest of my public school pupils; a very simple one might do the trick now. I held up one of the hardtack for them to see, calling attention to its size. I laid it in a dish of water and in almost breathless silence they watched it swell and swell. I explained that their mothers had eaten too many crackers and drunk too much water, making their stomachs too full. That was why they suffered.

[522] The children caught the picture of the women's greed causing their pain, and laughed. Like all people who live precariously, the Havasupai found relief from hardship and danger in a ready sense of humor. The discomfiture of even one's own mother was funny, except in cases of illness or severe suffering. But the experiment had restored hardtack to its rightful place as a food. They ate it with their former relish.

262 When I dismissed school that evening, we had no need of

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Vesnor and his horse. The children scampered off through the brush on the trail that led to the village. At home there would be food, the kind they were accustomed to and for which they hungered in a way no white man's viands could satisfy. Perhaps it would be the delicious corn bread their mothers made by crushing grains of new corn to a pulp, molding it into elongated shapes which were fitted into the husks of green corn and baked in the ashes. The bread would be rich and sweet and more delicious than any hardtack ever made. Or if it were the season for little green squashes, there would be another treat. The squash, cooked, mashed and mixed with the cooked grains of new corn, was a delicacy so enjoyed that the thought of it could start the children's feet running toward home. There would be food at every house they passed on the trail, and a Havasupai shared as generously as our own ancestors did before we measured our sustenance by its cost in dollars and cents.

That week another letter came from Mr. Ewing demanding that I submit the annual report immediately. He added the important news that the Hackberry Day School would open in the fall as the Truxton Canyon Training School. This would be the fulfillment of the promise he had made to the Walapai that he would establish a boarding school for their children.

Early Saturday morning I started to the Indian village to get additional information to incorporate in the annual report. The trail hugged the foot of the west wall. I had passed scattered wickiups, tucked back among the willows, before I came to a high, precipitous section of the wall that narrowed the passage. Bob, one of the tribe's medicine men, had told me that the god-spirit lived in two columns of stone on the rim of this inthrust section. The Indians had discovered these at the time they had settled in the canyon.

I had an excellent view of the two great pillars of red sandstone, as tranquil and aloof as images of Buddha. Neither white man nor Indian could fail to be impressed by them. What force placed them in that exposed position? How had they stood through the

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with heavy boughs still fully leafed, kept the interior cool. An open porch sheltered the doorway. When his wife wiped the soil from her hands and entered the house, I intended to follow, but hesitated as I caught the odor of cooking meat. It came from a lard pail, propped on stones over an outdoor fire. She turned and motioned for me to lift the lid; she was pleased that they had fresh meat, for it was far from plentiful. Curious to know what she was cooking for the family dinner, I uncovered the pail.

Two large glassy eyes stared at me from above the boiling water, and made the cooking rabbit seem alive. The hairy ears stood erect increasing the impression. The skinned body had been crammed into the bucket, but the head had refused to remain submerged. The lid dropped, clattering from my hand. Since then I have not cared to eat rabbit!

The interior of Chickapanyegi's house was arranged like all well-kept Havasupai homes: rolled bedding in the depressions in the floor where the family slept; personal possessions tied in a cloth and hung above the bed; and the inevitable pole, just below the ceiling, loaded with rabbit skin blankets, fiber mats, Navaho blankets and clothing not in use. Poles supported drying ears of corn and spirals of squash that brushed the head and shoulders as one moved about within the house.

I wanted next to see Gentle Annie's home. Her house would not be neat and spotless if Gentle Annie was the housekeeper. She was old and tired from the wars she had survived and the hardships life had dealt her. I found her standing at the door of her dome-shaped wickiup. Her wrinkled face and bright black eyes held friendliness. That may have been why she was known to Indians and to whites as Gentle Annie, the only name I ever heard for her.

A brand-new bedroom chamber, pink roses painted on its yellow side, stood on a box near by—filled with delicately browned navy beans.

With toil-worn hands Gentle Annie reached up to the lintel, took down a hard, dry slab about twelve inches wide by sixteen

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long, folded back the cloth in which it was wrapped and breaking off a small chunk, handed it to me saying, "Eat!" How long it had lain there, growing harder and drier with age, I had no way of knowing, but to refuse her hospitality would give offense. I took a bite. At first it tasted like dried sweet potato, but the mass grew bigger and bigger until my mouth was full of coarse, hard fibers. I made an excuse for leaving, that I might get rid of it without hurting Gentle Annie's pride. I learned later that the Indians dried mescal in sheets and stored it as this slab had been stored, so I may have had my first and only taste of mescal.

When I arrived at Little Jim's home, his wife E-e was leaving to empty and clean her storehouse. I accompanied her for I wanted to learn more of their ancient and peculiar method of storing food. The small stone granary, with a round opening for the insertion or removal of food, was built in a crevice in the canyon wall. The hard stratum beneath made a solid floor that rodents could not penetrate. Neither could they work their way through the stone walls, plastered with a hard cement of native manufacture from material available in the canyon. There was a never-ending fight against rodents. The numerous rats, mice and chipmunks, when winter reduced their food supply of growing plants, raided any storehouse into which they could gnaw their way.

The opening in E-e's storehouse was closed with a flat stone, sealed in place with cement in which the family's mark of identification had been placed. If anyone helped himself to her stores, a break in this seal would warn her of the theft. She dug away the mortar, set the stone aside, then lifted out the few stores that were left.

Crawling through the opening, she brushed up the floor, then began storing the food she had brought with her: ears of seed corn in one place; shelled corn in another; strings of dried squash and pumpkin necessitating special care to prevent spoilage, by themselves. With amusing gestures, when I failed to understand her native tongue, she showed me how she tied the dried seed of

Zolliff Y-5 (ca. 1901) 1954 NT14 Plateau Yumans NT14
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While Eastern construction workers were harnessing Mooney Falls, this load of alfalfa would have brought the woman five dollars

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Mescal trimmed for the roasting pit. Stick is used to pry plant from the ground. Hatchet-like knife is used in trimming

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CHAPTER TWENTY

The Peach Dance

175

As summer waned, the Indians' activities centered on the Peach Dance, their annual harvest festival, held in late August or early September to give thanks to Those Above for a bountiful crop and to petition for continued protection and care. 796 527 514

Men and boys hurried to complete a task at which they had worked indifferently for weeks—the clearing of brush and debris from the dance floor. Messengers rode up the trails to the east and to the west, carrying the knotted counting cord extending invitations to friendly tribes. The invited guests need only cut a knot from the cord each day, the last knot representing the day festivities would begin. These guests would bring news, and their presence would add zest and gayety to the celebration. Women left their games of chance and busied themselves at the grinding stones. Vegetables were brought in from the gardens; peaches, figs and apricots, either fresh or dried, were prepared for the big feast. [203 211] [262]

The Peach Dance was one of those age-old ceremonies revealing the true culture of the Havasupai. For centuries men and women of friendly tribes had flocked to the canyon to take part in the festivities and to trade Navaho blankets, ponies, saddles and silver ornaments for garden-grown vegetables, fruits and buckskin. [439]

A few Walapai and several Hopi drifted in for the dance, and our hopes kindled that some of the white men and women who had previously attended this ceremony might make the trip into

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they had wood to sell. They needed the wild seeds, fruits and roots 221
that grew on top, they insisted. But, when I saw their childish delight as they made their departure, ponies loaded with cumbersome bundles, I knew that they were motivated by the very human desire for change, to get outside, where they could look about, with the full sweep of the vaulted sky above, with endless miles in which to wander.

Not an Indian who was physically able to ride but longed for this trip to the mesa. Only our policemen and the few persons needed to care for the sick and the aged stayed on through the winter.

It was a strange procession that finally departed up the trail. A single file of horses so encumbered by household equipment, clothing and food—all topped by a member of the family—that it looked like a train of bundles, walking off on four feet.

And what mysteries those bundles contained!

Near the village that fall I had watched a young woman glean 222
the ripe fruit from a sprawling bed of prickly pear cacti by catch- 262
ing the fruit between two gathering sticks, and with a quick twist break it free. After removing the spines by swishing the pear with a fiber brush, she tossed the clean pear into the burden basket on her back. At home any remaining spines would be wiped off [257]
before the fruit was split and laid in the sun to dry. She had approached her task fully prepared with gathering sticks, brush and burden basket. Tied in those huge bundles that obscured their ponies, I knew, were the crude, homemade tools they would use in gathering the many edible wild plants that grew up above.

The pigweed on the mesa should be a luscious bush loaded with small rich seeds. Its leaves, boiled, were eaten as a vegetable; the ripe seeds were toasted, ground and cooked into a mush. Mormon tea would be gathered, dried and stored to be brewed in a refreshing drink. The dry pods of the mesquite were sweet and nourishing; they were chewed for their food value or, reduced to a powder and mixed with water, used as a drink. Fall ripened the fruit of the yucca, which was an important food. After frost, the Indians

2:11iff Y-5 (ca.1901) 1964 NT14 Plateau Yumans NT14
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222 would comb the desert for the piñon nuts, oily and pungent, as
262 they fell from the pine trees. The desert, which yielded its store of food to those who knew where to search for it, was ripe for the harvest.

221 Each day one or more groups climbed the trail, bound for
222 Seligman to loaf about the trader's store, or for the pueblos of the Hopi or the scattered villages of the Walapai. They would denude the plateau of its food plants as they traveled. Laughing, shouting back merry good-bys to us, they climbed the trail. The canyon seemed full of empty houses.

221 From their talk I gathered a clear picture of their life on the
262 upper level. They would kill an occasional deer or mountain
224 sheep, if no white man were about; even without these there would be meat, for rabbits were plentiful. They satisfied their need for sweets by robbing bees' nests hidden in clefts in walls or in
[316] hollow trees. Long ago they had found a cave in a distant cliff that contained more rock salt than they could use. So with vegetables, meat, salt and honey in addition to the supplies they took with them, their needs would be satisfied.

221 When harsh winter set in, they would retire to their small, tight
361 winter houses in the cedar thickets and live off their stored foods.
262 One of the most delicious of these was the corn that had been roasted in the husk, while fresh and green, dried somewhat and stored. They would cook the ears in boiling water and the grains would have the sweetness of fresh corn.

253 Those who had not bothered to bring cooking pots, drew on
824 the desert's reserve by burning the spines from a section of barrel cactus, removing the center pulp, and using the cavity for the old-time method of stone boiling. Accustomed to making the most of the things at hand in the desert, on the mountains, or wherever they might be, the women cooked mush and boiled vegetables or meat in this unique container, giving no thought to the hardship involved.

221 Melting snows and swelling buds would start the wanderers
222 leisurely homeward, pausing on the way to reap a rich harvest

English of a number of words, and all during the day I heard him repeating them over to himself, and seldom would he need correction.

The dress commonly worn by the women consists of a short skirt and waist, made of colored calico, and a *si-dram'-a*, which may be described as a rude shawl, two corners of which are tied obliquely across the chest. When at work this is often slung over one side of the body so that one arm is free. Among the Havasupais the si-dram-a that is most desired and sought after is one made of four large bandana handkerchiefs, with red as the choice of colors.

The men, when I first visited them, seldom wore anything more than the breech-clout except in cold weather, but as school influences began to permeate the village, blue overalls and the cast-off trousers and other clothing of the white man were donned, until now it is a rare sight to see a man clothed in any other than the ordinary fashion, though the influence of the outside Indians is seen in the Spanish "cut" of all home-made garments. Moccasins are the common foot-gear, though occasionally a man or woman may be found wearing "civilized" shoes.

Fish, pork, chicken, all kinds of birds and eggs, are tabooed as food by the Havasupais, but they eat rats, deer, antelope, rabbit, prairie dog, and mountain sheep. They are especially fond of beef, and horse and mule meat, no matter how the animals come to their death, are esteemed luxuries. They will even eat lizards and lice.

The prickly pear and the fruit of the amole, or hoshkon, are much favored when ripe. The latter is roasted in the coals until the outside is completely blackened.

3:James T-5 (ca. 1900) 1903
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A hole is made in this carbonized surface to let out the steam, and, when cold, the fruit is eaten as a great delicacy. I have often eaten and enjoyed it, though it has a sickish-sweet vegetable taste that at first is somewhat unpleasant. The pinion nut, sunflower and squash seeds are also regarded as delicacies. Practice has made the Havasupais dexterous in eating these husk-covered seeds. The novice finds it a wearisome task to hull them, but the expert throws a handful of seeds into his mouth, cracks the shells, and by skilful manipulation eats the nuts on one side of his mouth and expels the shells on the other. When I can do this I shall make a meal on pinion nuts, as they are of exquisitely sweet and delicious flavor.

Sunflower seeds, squash seeds, and a variety of wild grass seeds and corn are parched by the women by placing them in saucer-shaped baskets — or kŭ-ŭs′ — with hot ashes, and then tossing them up and down and to and fro until sufficiently cooked. The seeds are then scooped out with the fingers, and ground on a slab of basaltic rock, by rubbing one stone over the other. On the occasion of one of my visits, when I was the guest of Chickapanagie, I made the accompanying photograph of his wife as she thus parched corn in a basket. It was the placing of a covering of clay inside the kŭ-ŭ, to prevent its burning, that led Frank Cushing to the belief that here was the explanation of the origin of pottery.[1]

Green squash is cooked after being hacked into pieces in an apparently reckless but most effective manner. With the squash in one hand, the woman takes a large

[1] See chapter "Basketry the Mother of Pottery," in "Indian Basketry," by George Wharton James.

3:James T-5 (ca.1900) 1903
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butcher knife in the other and strikes indifferently at the squash, turning it around and at different angles the while. In a few moments chips, as it were, begin to fall into the cooking pot, and after the exterior is cut and hacked in every direction the cook begins to slice it into the pot. When well cooked, it is eaten without any other improvement than a little salt.

Corn and beans are plentiful with them, and both are as delicious and tender as any I have ever tasted elsewhere.

Mescal is one of their chief foods. It is made by them exactly as the Wallapais make it. That fibrous portion of the plant that cannot be treated in this manner is boiled, and the drink therefrom, when fresh, is a sickish-sweet liquid, that, however, might soon become agreeable. This liquid is of a dark brown color, and when boiled for a long time becomes a species of thin molasses.

The Havasupais know no process of fermentation so far as I have been able to learn, and the elders of the people long objected to the coming of the white man because one of the bad things he brought to the Indian was whiskey and other intoxicants.

Quail and ducks abound in various parts of the Havasu Canyon region. Even to this day many of the latter are shot, for sale to the white man, with the arrow instead of the gun. The Havasupais claim that the arrow is far less liable to scare away the flock than is the loud report of a gun, so they keep up their practice with the antiquated bow and arrow, and some of them show wonderful skill in their use. I have often placed a ten-cent piece in a notched stick and enjoyed watching the young men as they fired their arrows at it at a distance

plums, almonds, and pomegranates, there being only a few trees of the latter three kinds. 245 177

Whiting lists the following aboriginal cultivated plants: corn, pumpkin, squash, Hopi sunflower, three varieties of beans (tepary, kidney, and lima), cotton, and gourds. Introduced plants include peach, pear, plum, apricot, fig, apple and walnut trees, watermelons, cantaloupes, blackeyed peas, devil's claw and alfalfa. Plants introduced, but rejected or used very little, are onions, chilies, sweet potatoes, tomatoes, peas, wheat, and cherry and almond trees (Whiting n. d., 60). 241 177

Spier (1928, 108) reported antelope to be the most plentiful large game animal, with mountain sheep and deer also in good supply. Mountain lions were killed occasionally, but the meat was generally abhorred. Smaller game included cottontails, jackrabbits, squirrels, and various kinds of birds. McGregor (1951, 17) reports predators now present on the plateau are lions bobcats, coyotes, badgers, and probably foxes. The Havasupai are now restricted to hunting deer and antelope only in the legal season. Rabbits are an occasional item in the daily fare, but most meat is obtained by purchase from a store or by butchering Havasupai-owned beef. The Havasupai did not eat fish, and, although Havasu Creek has been stocked several times, few Havasupai will eat fish even today. Apparently, the next storm following introduction of fish kills them or washes them down to the Colorado River. 136 262 [224]

The Reservation and Its Administration

The original Havasupai Reservation, established in 1880, consisted of an area 5 mi. wide by 12 mi. long lying on the floor of Cataract Canyon and the adjacent Esplanade. In 1882, the reservation area was reduced to 518.6 acres located entirely within the confines of Cataract Canyon. In 1940, four sections of land on the plateau, outside the National Forest boundaries, were added to the reservation to give the Havasupai water rights on various springs used by their stock. Horses and cattle owned by the Havasupai graze in the Grand Canyon National Park, which completely encompasses the reservation proper, and also on National Forest lands adjoining Grand Canyon National Park to the west and south (Ladd, personal communication, 1952). 657 131 [423] [231]

Government Services

The Office of Indian Affairs administrative headquarters, located almost 100 mi. away at Valentine, Arizona, is the Truxton Canyon sub-agency, which also serves the Walapai, Yavapai, and Camp Verde Apache. A resident agent at Supai acts in an advisory capacity to the tribe and is in charge of government-owned property on the reservation. A sub-agency was first established in Cataract Canyon about 1895 (Whiting n. d., 21). 657

524 177 hood for both boys and girls. These have been superseded by commercially manufactured toys.

853 The breast (or a bottle) is almost invariably offered when a young baby cries. When the infant is four or five months old, he is fed fresh peaches, mashed by the mother's fingers on the metate, or soup from stewed, dried peaches. He also receives some premasticated morsels of corn or other items from the family meals, transferred by the mother's fingers from her mouth. At about one year the baby eats thin cornmeal mush, and the softer foods are no longer specially prepared for him, but meat and other coarse foods are ground on the metate, or premasticated until the baby has enough [482] teeth to chew adequately. An informant stated, "The mother does most of the feeding, but if she is busy, the father will do it. A man likes to do things for his baby."

Sitting and Crawling

854 868 At three or four months of age an infant is removed from the cradle and encouraged to sit alone. He is also permitted freedom to crawl on the ground. No babies were observed scampering rapidly over the ground in the way an experienced crawler will do on a smooth floor. An infant crawling out-of-doors appears to move cautiously, stopping frequently to sit up and handle clods, rocks, and sticks, or to investigate any obstacle he encounters. Parents usually let a baby explore unhindered. However, when an object is taken from a baby, it is not grabbed hastily nor is the baby handled roughly when he is removed from a place where the adults think he should not be. Parental behavior tends to be calm and gentle. If a protest is forthcoming from an infant whose play has been interrupted, it is seldom more than a puckered face or a brief wail. The mother may distract the baby with a toy, or she may simply turn her attention elsewhere after quietly telling the baby to be still. The baby may attempt to recapture his mother's attention, but he quickly loses interest and resumes his playing.

231 Dogs, which are attached to every household, may approach a cradled child to sniff or lick his hands or face. An infant seldom shows fear of a dog, but if he does, the dog is quickly and loudly driven away. This constitutes the most frequent occurrence of harshness in connection with the baby, for a dog is often addressed sharply and may be kicked or beaten if it doesn't respond immediately. Nevertheless, dogs are nearly always within the baby's range of vision, and by the time he reaches the crawling stage, a baby begins to play with any dog that stays within reach of his hand. The dog's ears and tail may be pulled or twisted, or its eyes poked by small fingers; later, as the child grows more active, a dog is sat upon, tumbled about, and pinched; and still later on, it is lassoed, tied, and dragged about.

757 [753] [262] It is believed that blisters on the tongue or inside the mouth of a nursing infant are a result of the mother's breaking the salt taboo. The blisters are treated

881 343 a few tasks for her mother, she retires to this bed, sitting or lying on it most of the time during four days and nights. The rocks stay hot overnight and are reheated each morning. At her mother's bidding, a girl rises frequently during the day to carry wood or water, or to do some other work so that she will not become a lazy wife.

881 887 869 In former times, an old woman, often a girl's grandmother, sat beside her throughout the night singing and talking to keep the girl awake. "Don't be lazy," the old woman admonished. "When you marry, work hard and be a good wife and mother." At present, a girl is permitted to sleep part of the night.

Taboos

881 262 [263] During this and subsequent menstrual periods, a girl refrains from eating meat, which would cause her face to wrinkle and her teeth to wear out prematurely. Although Spier (1928, 326) states that salt is not taboo, present informants say it must be used very sparingly. Otherwise, a girl while menstruating may eat much the same as usual, except that soft foods and liquids are preferable for her, and she should eat small amounts. Some foods considered appropriate in former times were corn mush, silé (unidentified) mush, black sunflower seed paste, opuntia pears, and dried soapweed pears.

881 [237] [531] Scratching with the fingernails would leave raised marks or scars on the skin, so girls formerly used a deer tibia painted with red, black, and white designs, said to be without significance. Or she might make use of any stick close at hand. At the present time, sticks appear to be used exclusively. These are undecorated. In 1951, a Havasupai girl, while visiting an abandoned storage cist with this investigator, found a stick tucked into a crack under an overhanging rock. The stick, identified without prompting as a puberty scratching stick, was about 8 in. long, 1/2 in. wide, and 1/4 in. thick. It was undecorated and unsmoothed except for one slightly rounded end which probably had been abraded with a stone. The only stick observed in use, however, was any one which happened to be at hand.

[838] [842] [841] Sexual intercourse is prohibited during menstruation. As one informant phrased it, if this taboo is broken "you will be pregnant right there." Infraction would result in this penalty for either premarital or postmarital intercourse during menstruation, and for intercourse during the menstrual flow following childbirth.

[856] [826] If a girl at puberty is thin, a fat woman "stands on the girl's back" so she too will become attractively plump. In practice, a fat woman places one foot on a girl's back, exerting but little pressure. In one instance a girl's father is known to have performed this role.

though she may explain to the elements, "Go over there on top (on the plateau) where those people need water. We don't need it down here. We have plenty." An informant told me that a heavy storm which swelled the river on the night of August 9, 1951, was halted in this manner by a neighbor who became alarmed at the proportions the flood was reaching and who happened to be pregnant at the time. 843 789

By gesturing with only one hand, a pregnant woman can command rain to fall. (A person of either sex can bring rain during a dry period by singing a special song which everyone supposedly knows but which is considered dangerous because it may cause a great storm.)

In gambling, a pregnant woman brings luck to herself and her husband or to any other player she may stand behind. Informants added cautiously, "But if she doesn't win the first or second hand then she should quit. It shows that she won't win at that time." [777] [525]

Taboos during Pregnancy

Spier (1928, 300) states that, "For a month before birth the woman and her husband must refrain from meat, and the woman alone from very salty foods. These taboos are relaxed a month after delivery, when hemorrhages cease. Should she ignore them there will be complications. During this time she must use a stick to scratch herself." 843

Informants now variously report that taboos apply during almost an entire pregnancy or as little as a month before birth and from eight or 10 days until several months afterward. They are generally agreed that women formerly observed taboos strictly while now only a few women are very careful and some scarcely heed restrictions. Informants were not agreed as to specific details of certain taboos, sometimes expressing opposite beliefs. For example, one woman reported that a pregnant woman "can't scratch her face or belly or it will make a scar. She can't use a stick either; that would also make a scar. A stick may be used during monthlies, but not during pregnancy." Most other women stated that a scratching stick was as properly used during pregnancy as during menstruation.

Meat taboos particularly emphasized tongue, kidney, intestines, lungs, liver, tenderloin, sausages or weiners. Tongue would cause the baby to chew its own tongue; kidney or tenderloin would cause the child to be deformed, birth would be difficult, or the mother would die at birth; intestines or weiners would tangle the umbilical cord about the baby and prevent its birth; rabbit or cow's head would cause the baby's lip "to be torn the way the cow and the rabbit look" (harelip); mountain lion would cause the baby's death by choking; deer or coyote killed by a mountain lion would cause the infant to have diarrhea. Coyote meat was not eaten at any time, and proximity of a coyote carcass or pelt was dangerous to small children as a cause of diarrhea, other illnesses, or death. 843 262 825 [753]

843 of diarrhea, other illness, or death. While coyote skins were used as part
825 of a dance costume, they were kept where children could not approach or touch them. Only people without children kept such skins in their houses.
[787] "The coyote is like the medicine man--a dangerous personage. If you hear a coyote howl near your camp, it means someone in your family will die soon."

843 Other foods as well as certain acts are prohibited or proscribed for
262 one or both parents during the prenatal and postnatal periods.

If an expectant mother ate too many nuts (originally pinyons) her baby would become so fat that birth would be difficult. Stealing food would cause a baby to be born with a tooth already cut.

All meat is taboo to the mother for about 10 days after birth, or until the postnatal flow of blood has ceased.

843 Both parents, but especially the mother, during pregnancy should avoid looking at any human, animal, inanimate object, or picture that is misshapen, grotesque, or in any way different from normal, as this could cause the baby to have the same deformity. Modern interpretation discourages an expectant mother from attending movies or reading comics to avoid seeing "something awful." Danger to the baby is intensified if the mother laughs at any strange sight she sees. She should glance away quickly and forget it.

There are no restrictions on a man's use of specific tools, but he must be careful in killing game not to break the legs, nor should he cut off the legs of any animal lest his child be born a cripple. If a man kills a snake or a lizard, his child may be a cripple or it may be weak, allow its head, arms, and legs to hang limply, and be unable to walk. (At no time should any person step on or over a snake or its tracks, as this may cause paralysis. However, it is permissible to kill a snake, with the above exception pertaining to pregnancy.)

843 Formerly women ate little or no salt before birth or afterward until a
263 baby stopped nursing. Too much salt eaten before birth would cause sores in the baby's mouth, or afterward, would dry up the mother's milk. Salt eaten before birth might also cause the mother's feet or the baby itself to swell. Now women eat salt after birth if their baby is bottle fed. Little or
[826] no salt is fed to babies, as it might cause sore mouth or diarrhea. Salt may also cause a woman's face to wrinkle prematurely.

[846] After the birth of her child, a woman drinks soup to bring milk and to keep the supply constant. Formerly this was a thin corn gruel.

relatives who stop by to tend the fire for warmth in winter, cook, bring food, or perform other small services. Some relative may visit at the camp for a few weeks or months, but such care is intermittent, and the unfortunate aged without children may suffer from neglect, especially if they are unable to move about or prepare food. 888 737

Two Observed Cases

A feeble woman of 88 years was observed daily during a period of three weeks while the investigator was interviewing the daughter with whom the old lady was living at the Grand Canyon Village.

She could hear well but was almost totally blind. Her face was a maze of loose wrinkles, the edges of her eyelids barely distinguishable among the other lines unless she partially opened her right eye, as she did occasionally. Her tangled grey hair straggled loosely about her face. On a pile of dirty rags, she sat or lay beside the campfire. On her frail, stooped figure she wore the same tattered, filthy dress, sweater, and machine-made moccasins during the entire three weeks and probably slept in these garments at night. She was never seen washing, and showed no evidence of having done so. [145] [515]

She was fed thin cornmeal soup and small portions of whatever the family had that she could swallow in her apparently toothless state. She drank her food from a saucepan or small granite bowl, using her fingers for more solid morsels. Her son-in-law had traded some red rock powder in Moenkopi for about $5 worth of piki bread, of which she was especially fond. She crumbled it in small pieces, scooped it up in both hands, and with head tilted back, emptied it into her mouth. [262] [415] [264]

The old woman was able to hobble about leaning upon a stick cane. To reach her toilet area she followed a mooring rope along the side of the tent in which her daughter's family lived, then followed a rope strung for her from a rear corner of the tent around some trees which removed her a little distance from the camp but not from sight. Once, when the old woman hobbled some distance from the camp gathering wood chips in a bag slung over her shoulder, she was guided back by her small grandson. Occasionally, she would wander off to visit a neighbor and would hobble around in circles until someone came to her rescue. On these occasions, the adults would call a child to her assistance and would keep shouting instructions to her and the youngster rather than themselves helping her unless no child was within calling distance. The children would lead her with a stick rather than touch her. Adults showed an equal distaste for personal contact with her, yet her toddling grandchildren were permitted to sit in her lap and her daughters-in-law readily placed their babies in her arms. [314] [482] [574]

Most popular foods today still are corn, beans, squash, sunflower seeds, peaches, and figs. [241] 824

Wild plants utilized, according to Whiting, were the following: goosefoot, peppergrass, muttongrass, wormwood, tansy mustard, blanket flower, gilia, blazing star, pinyon, amaranthus, shepherd's purse, June grass, Indian millet, marigold, cat's claw, mescal, juniper, desert thorn, prickly pear, mesquite, squawbush, broad leaf yucca, Mormon tea, Lippia wrightii, aqlisa (unidentified), watercress, Indian pipe weed, and desert plume (1953, 103, 105, 108, 113, 114, 115). He reports that watercress was introduced. [177]

Preparation of Food

Grinding corn was one of the most laborious and time-consuming tasks a woman had to perform under aboriginal conditions, but women grind less now that they can obtain wheat flour and other commercially prepared food. A number of families have purchased handpowered machine grinders, and almost without exception these are preferred to the metate, because meal from the latter always contains grit. 252 [177]

A woman sits at her metate or grinding stone (pi'), her legs turned sideways beneath her, leaning slightly forward so that her weight is balanced over her knees as she reaches toward the far end of the stone. She has two sizes of hand milling stones (va-djk). Grasping the larger stone, she first uses an end of it to break the dry corn kernels (younger women may or may not use this method). The hand stone or mano is held in both hands for grinding, and the woman places a pile of corn on the end of the metate nearest her. The mano is moved away from the woman, and on each third or fourth backward stroke, a few more kernels are caught beneath it with a rocking motion and a slight pause in rhythm. The smaller mano is used on the same metate to reduce dry corn to a finer graininess or to crush green corn to a pulp. It is questioned whether the smaller size of the second stone is significant; it seems more likely that a harder, smoother texture of the stone itself is the pertinent factor. [516]

No attempt is made here to inventory recipes used by the Havasupai, but a few examples are described.

Soup or mush was one of the dishes most commonly prepared. It varied from a clear, watery consistency to a thick paste. Ingredients ranged from dry or green corn to crushed seeds of various wild plants, which might be boiled singly or combined in numerous ways. Soup or mush was eaten unseasoned, or flavored with salt, squash blossoms, or marigold. 252 262

Dumplings were made from dry corn, cooked to a thick paste, or from green corn shaped into balls and dropped into salted, boiling water.

252 Corn was also boiled or roasted in whole ears and eaten at once, or the
262 husks were pulled back to permit drying for storage.

Squash was cooked, fresh or dried, in boiling water and usually was not
[251] combined with other foods. For storage, the squash rind was hacked off, and the meat was cut spirally in a long strip which was folded up loosely and tied to the house rafters or outside to dry. For use, dried strips were broken off and boiled in salted water.

Beans were prepared much the same as dried corn, either ground into flour and boiled as soup or mush, mixed with other ingredients, or boiled whole.

In a lengthy process, mescal was roasted in an earth pit with heated rocks and hot coals. Bread made from corn meal or the flour of wild seeds was also baked in a pit oven similar to, but smaller than, that used for
[177] roasting mescal. The Havasupai formerly had no other form of oven, but today many families have wood-burning cooking stoves.

Another method of baking which Whiting (1952, 111) traces to Hopi con-
252 tact, was the use of a flat, smooth stone supported over a small fire by
262 several other stones turned on edge. The flat stone surface was greased
177 with pumpkin seeds or suet, and a thin flour batter made from parched blue or white corn was spread over it. The bread cooked quickly, curling around the edges. It was peeled from the stone in sheets while still pliable and rolled up for storage. Whiting called this bread pika from Hopi piki, but this investigator recorded dis ' -vâ' i -ñdt. Only a few of the older women know how to make it. Informants referred to this baking method as "frying," possibly because a thin veneer of oil was applied to the baking slab, but Spier (personal communication, 1957) rightly points out that this is not true frying. He remarks further that, offhand, he was unable to recall any North American tribe which used frying aboriginally. Hopi and Zuni piki bread is baked rather than fried.

252 The most popular bread eaten today is the tortilla made from wheat
262 flour, salt, and water, usually with baking powder added. It is baked on a wire rack over an open fire reduced to coals, although in cold weather it may be cooked on an inside stove with or without grease. Tortillas are the mainstay of daily fare, usually being baked fresh every meal. Small pieces torn from them are often used in lieu of a spoon to carry softer food to the mouth.

Cornbread, made from green or dried corn and baked in a wood-burning stove or wrapped in husks and baked in an earth pit, continues in popularity. Sometimes wheat flour is added to it.

Various butters were made from pinyon nut meats, parched sunflower, watermelon, or pumpkin seeds, or seeds of certain wild plants. These are

compared to peanut butter in consistency, but each seed had an individual flavor. Parching was accomplished by putting hot coals in a tray with unshelled pinyon nuts, corn, or seeds and shaking vigorously to prevent burning. Pinyon nuts were shelled on a metate and tossed in a winnowing tray while the shells were blown away. Pinyon nut butter was sometimes mixed with roasted dried cornmeal to make a thicker paste. Young people compare pinyon nut butter unfavorably with peanut butter, because it was drier and always had tiny shell fragments in it. 252 262

Drinks were prepared from peaches and other fruits which were cooked until pulpy, thinned with water, and sweetened after sugar was available. A refreshing drink was made from mesquite beans pounded gently on the metate to break the pulp membranes but not the seeds. The mashed beans were soaked but not cooked, and the pulpy substance was squeezed out before use. 272 262

Meat was boiled fresh or dried, roasted in a pit, or broiled over an open fire. Pit roasting was the favored method for most game because natural juices and more flavor were retained. Certain small animals such as the rabbit were boiled, the water sometimes being thickened with corn or bean flour. 252 262

Fruits were eaten in season fresh or occasionally stewed. For storage, berries were dried whole, and larger fruits, to speed the drying process, were split open and pitted. Figs and the pulpy fruits of prickly pear, mesquite, and roasted mescal were mashed on the metate and kneaded into flat cakes for drying. One woman observed preparing to dry what she called fig bars, rolled the pulp into figure eights, then flattened them gently to close the holes. 251

Foods are left outside until cold weather, then stored inside the houses. The storage cists located along the talus slope throughout the canyon are no longer used, but a few families continue to use the shelf of the talus slope, in favorable locations, for drying fruit. [343]

Several younger women today process a small amount of fruit in jars. [177]

175 648 boundary in 1882 the Government took no active interest in the Havasupai. In 1902 a government farmer was sent to instruct them in better methods of farming and the use of metal implements.

439 For many years the Havasupai have carried on an inter-tribal trade with the Navaho and Hopi, obtaining blankets, wool, and silver work in exchange for dressed skins, and agricultural products. The Hualapai on the west trade many of their raw deer hides to the Havasupai in exchange for the Navaho and Hopi goods in addition to fruit and vegetables.

ECONOMICS

262 The present Havasupai food supply is based principally on agricultural products and meat. Corn, beans, and squash are the staples, supplemented by melons, tomatoes, melons, and other garden vegetables. Beans are of two kinds, navy and pinto—the latter a red spotted bean. The fruit crops are peaches, nectarines, apricots, and figs. [175] Peaches are said to have been introduced by John D. Lee, a Mormon, [177 233] who lived as a fugitive among these people for several years following 1867. Meat in the early days was obtained by hunting, but today most of it is from their herds of range cattle.

592 The economic unit is the household, usually consisting of parents, children, and unattached close relatives. These small groups are closely bound into large ones by blood ties. This grouping is based on, or at least correlated, with the inheritance of land on the one hand [428 591] and the temporary matrilocal residence on the other. Sometimes several generations of these people live close together and work together, but each married couple and the progeny are regarded as a distinct [591] unit. Some young couples build a house soon after they marry, but it is customary for them to live with the wife's parents until they have a home of their own.

428 Property descends through the male line. If a man dies his effects do not descend to his wife but to his sons. The sons may hold land or stock undivided for years until they have families of their own whose diverse interests make division necessary. The widow and unmarried daughters do share in the use of the land; but they cannot [768] lay claim to it, since the widow's relatives and the daughter's children never inherit it from them. If a widow hastily re-marries, her "use" interest is lost, reverting to the other heirs. Should there be no direct heirs, the property goes to the dead man's brothers or their male descendants.

423 When not living out of the canyon in the winter, the Indians live in a section of the canyon not much more than a mile in length. Ownership of the arable land is communal. Every family has a piece of land, which is recognized as belonging to it by the rest of the tribe. By established custom the land is inherited and may be sold to a fellow tribesman. One peculiar condition that caused some trouble in the past was the ownership by one Havasupai of fruit trees growing on the lands in possession of another, brought about, it was reported, by certain complications in inheritance.

432 A short distance above Supai village Walapai Canyon branches off to the west. In the upper end is grazed a herd of individually owned cattle. The men visit the herd occasionally to bring in a beef to the [432 settlement. The meat of the animal is sold or traded and is eaten in 251] a day or two, there being no means of keeping meat other than as jerky.

Horses and cattle are owned and herded by the men alone. The men are also the owners of the house and land on which it stands. Property, such as a man's tools, buckskins, weapons, saddle, and perhaps a charm and a mask; a woman's field tools, baskets, cooking uten-

few are given here. Green corn is usually shelled or cut from the cob and mashed to a pulp on the grinding stone. Water is heated to almost boiling, the corn slowly added, and the mixture stirred with a stick while the pot remains on the fire. When it comes to a boil, it is set aside to cool. Green corn in the husks is roasted on a bed of coals or buried in hot ashes until the outer husks are charred. The husks are then pulled back and the ears tied in pairs by their husks and hung up until some relatives or friends come calling. The usual way of eating corn on the ear is to break off the kernels with the thumb nail, catching them in the palm of the same hand. A handful is poured into the mouth at a time. Often the pulp of green corn is shaped into balls, wrapped in husks, and baked in hot embers. When the husks are removed the balls are eaten as bread. Green corn is sometimes cut from the cob, crushed, and boiled with unripe pumpkin cut in small pieces. A favorite sweet dish is made by boiling squash blossoms until tender, then mashing them to a pulp on the grinding stones. Meanwhile green corn, cut from the cob, is cooking in a pot over a slow fire. The pulp is added to the corn and boiled until thick.

Squash does not ripen until October. It is gathered in burden baskets, brought home and piled up. Later the rind is cut off and the seeds and center pulp scraped out. The flesh is cut out in strips and hung in the sun to dry. While still pliable it is made into bundles and dried thoroughly before it is stored for winter use. Squash prepared in this manner will keep indefinitely.

Fruit raised by the Havasupai is well known for its fine flavor. The women halve the ripe peaches and lay them out on the roofs or rocks to sun dry and then store them away for winter use. Figs are also dried. Some of the fruit is ground on the *metate*, pressed into large cakes and packed away.

Much of the beef and game is roasted and boiled while fresh, but often it is dried to preserve it. The meat is cut in long thin strips and hung in the sun to dry. It is generally necessary to pound this jerky with a pestle before it is cooked and then it is commonly stewed with dried squash or corn. Bean flour also may be added to thicken the stew.

In addition to the cultivated crops, the Havasupai gather several wild plants which are a valuable adjunct to the food supply during the winter residence on the plateau. The piñon nut forms an important part of their diet. In good years these nuts are gathered in large quantities during the fall and winter months by the women and children on the land high above the canyon. Some of the nuts are ground on the *metate* into a paste resembling peanut butter.

A drink is made of dried mesquite pods. The pods are crushed on the grinding slab, stirred into water, and the mixture allowed to stand several hours, after which the drink is ready for use. A variety of seeds—pigweed, goosefoot, and numerous others, are gathered and utilized in various ways. Some are roasted on parching trays and ground and the meal added to boiling water and made into mush. Pigweed leaves are boiled in salted water and eaten like spinach; sometimes corn meal is added.

The mescal (the agave plant) is considered at the right stage for eating when the flower stalk, which shoots out from the center of the plant, is a few inches high. The plant is severed by pounding a chisel-shaped buckthorn stick or stone axe against its base. The outer leaves of the inverted plant are trimmed of their green portion with a hatchet or butcher knife. A party of several families goes out and gathers mescal and brings it to the place where it is to be cooked. A pit which may vary in size but usually is about three feet in diameter and one and a half feet deep is dug in sandy soil, not in gravel because the steam would escape. Wood and brush are piled into the hollow to the height of a foot or more above the ground. Stones the size of a man's

THE HAVASUPAI

of the neck skin of the deer. The upper was a single piece of soft dressed skin, lapping at the outside of the foot, where it was fastened with a silver Navaho button. The woman's moccasin was a two-piece upper, a toe piece and a tongue in one, and long ankle flap which was worn around the ankle. The single tie string was wound over this and its loose end tucked under a fold. 291

Jewelry worn by the Havasupai is obtained in trade from the Navaho and Hopi or from the trader's stores at Grand Canyon. 301 439

Although the Havasupai relies mainly on his agricultural products, meat is a part of the diet the year round and especially during the winter. During the winter months rabbit drives are conducted by the men and boys. They drive in a straight course instead of drawing in a circle as several other tribes do. They claim their numbers are too few for a "surround". The rabbits are shot; never clubbed. Deer, antelope, mountain sheep, squirrels, and raccoons are also hunted. The hunt is still of economic importance as a supplementary source of food. Guns now are used in hunting instead of the traditional bow and arrow of former times. 262 284 [462] [177]

A man's work consists of house building or at least performing the heavy labor such as cutting and setting posts and beams, tending his fields, dressing hides, and looking after his range cattle and horses. 462

HANDICRAFTS

The Havasupai make basketry in two techniques, twining and coiling. Baskets are the most important domestic utensils and in each household may be found several burden baskets, food trays, and one or two water bottles. When not occupied with her other duties, the Havasupai woman is generally engaged in her craft. 285 415 482 462

The best material for making twined baskets is the acacia, generally gathered green. If gathered dry, or dried and stored, the twigs are either soaked in water or buried in wet soil two or three days before using. Cottonwood and willow are used. [824]

The leaves are stripped from the twigs by drawing them through the hand protected by a piece of cloth. The twigs are split in three parts, beginning at the tip, by using the teeth and both hands. Only the two outside strips are used, the inside being discarded. A knife is used to scrape the strips to uniform thickness. To begin weaving, two pairs of twigs are held so they cross at right angles at their midpoints. A weft strip is bound two or three times across the junction and the ends are woven alternately over and under the ribs. The weaving is in clock-wise direction, with the right side (the inside of parching trays and the outside of most other baskets) of the basket toward the weaver. After twining twice around the four ribs, another rib is inserted and caught into the twin stitch. The end of the twig is softened in water so that it can be drawn in tightly by the weft. The butt of the twig protrudes on the under side of the basket beyond the stitch by which it is held. As the weaving progresses new warps are inserted, always regularly spaced. As a rule baskets begin with diagonal twining, the weft crossing two warps at a time. Some begin with simple twining, the weft crossing single ribs, but soon change to diagonal weave. Diagonal twining is much more rapid. In either case the warps are inserted one at a time, but weft elements are twined in pairs, new strips are added singly.

To finish the edge of trays, burden baskets, or water bottles, the warp ends that protrude beyond the woven fabric are split and thinned, then bent to lie along the rim, and bound together with a stitch.

The burden baskets and water bottles are decorated with simple designs made by introducing different varieties of twining and with black from the Martynia or devil's claw. They have loops for carrying. The 285 415 531 [482]

THE HAVASUPAI

The father and sons work their undivided fields with the assist- 593
ance of their wives; the new son-in-law works with his wife's family 591
until he breaks away to return to his father's house.

In the village there are probably fifty camps or family units. In 621
each household are usually found some unattached relatives of close 591
degree—widows, widowers or orphans. The orphans are cared for by 736
the relatives of either parent, seemingly without prejudice to the interests of the children of the relatives on the other side of the family.

A council of comparatively recent origin, settles most disputes and 624
the tribe acknowledges three chiefs: Manakaja, the old chief, Watch- [177
omidja, the Big Chief, and Big Jim, the Little Chief. Chieftainship is 623]
inherited, but there are also men who have become chiefs through 626
prestige and renown, or both. The principal duties of the chief are giving advice and admonitions. They tell their people how to act, especially the young men and women. The men are admonished to work hard, farm, dress skins, and hunt, while the women make baskets, cook, plant, and gather wild food. They are told not to be lazy, to take good care of their families, their fields, and their stock.

It is the duty of the chiefs to speak to the people on appropriate 624
occasions such as dances, gatherings to discuss important tribal matters, at death ceremonies, or informally at sweat lodges. The advice of the Big Chief seems to carry more weight than that of the others, in part because of his position, but largely because he is a stronger character. Personal qualifications are an important factor in chieftain- [156
ship. A chief must be industrious, even tempered, and dignified; a son who does not display such qualities has little chance of becoming a chief.

Marriages are now monogamous, though polygamy once existed. 177
The only restriction is that blood relations may not marry. The young 595
people usually arrange their own marriages though parental consent 582
is sought. Gifts are still interchanged. 584

There is no taboo between a husband or wife and the parents-in- 601
law. A man may talk freely to his wife's parents or a woman may 606
talk freely to her husband's parents. However, neither husband nor wife address the parents-in-law by name. The wife has no relationship term to apply to them. She may use their names by way of reference. A woman when speaking to her husband may say *mamadjidjia*, your mother, *mamadjitaiha*, your father, or *humagatum*, your parents. The word *ginyega* is used by a man when referring to the parents of his wife, though not when talking to them.

Divorce in the early days was granted only on the grounds of un- 177
faithfulness, but today the Havasupai observe white man's laws gov- 586
erning marriage and divorce. A widow is expected to remain in 768
mourning six months or longer before she marries again, although 765
some marry in three or four months.

For about a month before the birth of baby the expectant mother 262
and her husband must observe numerous taboos. They must not eat 843
meat and the woman alone must not eat salty foods. During this time she must use a stick to scratch herself. These restrictions are relaxed a month after delivery. Failure to observe these rules will result in complications at birth, it is believed.

There is no particular ceremony following the birth of a baby. 852
The infant is placed on the cradle board as soon as it is washed. The 854
old women attendants mould the head, face, and limbs of the new born child lightly with the finger tips; point the chin, rub the bridge of the nose, and massage the gums. They do this every time the child is bathed. Babies are kept on the cradle board most of the time until they are able to walk. The Havasupai woman usually carries the cradle [482
board in her arms rather than on her back.

Generally a child is named when it begins to play about and takes 553

The Nation of
THE WILLOWS.
II

varieties. Upon this strange desert,
132 some sixty-six hundred feet above the level of the sea, considerable rain falls during latter July, August, and September; and with the end of November heavy frosts begin and snows ensue, occurring with greater or less frequency and severity of cold throughout the larger part of the winter. During the
136 latter season, these vast plains, undulations, and forest mesas are filled with game of the nobler sort, such as deer, elk, antelope, and bear; followed by the constant coyote and fox, "the herds and herders of the Ha-va-su-pai," as the Zuñis say. Quite different is the Cata-
133 ract Cañon itself, situated only thirty-five hundred feet above the level of the sea, the occupied portion of which is more than three thousand feet below the surrounding desert, — a veritable perennial oasis, with almost subtropical climate and luxuriance of vegetation, with a clear, cold, never-failing, impetuous stream cleaving its way through the little plain at the bottom of the cañon, the waters of which are strongly impregnated with carbonate of lime.
132 The atmosphere is as moist, warm, and temperate as that of the surrounding waste is arid and extreme. Frosts rarely and snows never visit its little plains, and even the quietest pools along the rushing little river are never fettered
137 by ice. The agave, or century-plant, which nowhere appears on the surrounding plains, reaches almost giant proportions in its valleys, furnishing the
[273] material for the mescal, or *ak-na*, so abundantly prepared by the Ha-va-supai, and so well known among the more southern tribes of the territory and of Old Mexico. Apricots ripen in June, peaches in July; corn is gathered and
[262] eaten during both months, and again planted, to ripen during September and
[P. 541B] October.

304 in the pulling out of the beard, although
302 whiskers are sometimes permitted to grow in front of the ears; beside occasional mustaches, faint goatees are affected by the young. Scarifications, for ornaments, are not unknown.

515 The women, both old and young, are remarkably careless of personal cleanliness and appearance, nor are the older men superior to them with reference to cleanliness. The young men, however, are noticeably neat in the care of their persons, frequently bathing in the river, and careful of their toilet and dress.

241 I have mentioned the things which are cultivated by the Ha-va-su-pai. On these, as on various roots, wild plants, and fruits, they depend for their vege-
252 table food. Green corn is variously
262 prepared: it is roasted, or boiled in the ear; or cut up and cooked with beans, bits of deer suet, etc., it forms the succotash of the more eastern tribes, and
[412] of historic celebrity. Crushed on a metlatl with a little flat grinding-stone or muller, together with green squashes, so as to form a pulp, it is then boiled, when it becomes gelatinous, resembling the *poi* of the Sandwich Islanders. Like it, also, it is eaten with the two fingers. Sunflower seeds, toasted by being shaken together with live coals in an earth-covered basket tray, then ground, formed into patty-cakes, and slightly baked in the ashes, are eaten as a relish with these and other dishes, in the absence of meat. Indeed, this curious sunflower food takes the place, to a great extent, of meat during the summer months.

251 The corn, while still green, is sometimes prepared for storage, by being roasted, husks and all, in hot sand, while the ripened corn is merely dried on the ear. Food is made of the latter, either
252 by simply parching, or by grinding into meal. The meal, coarse or fine, is then used for samps, mushes, or batters, and cakes, thick or thin, and of many varieties and degrees of wholesomeness.
[262] Melons, pumpkins, peaches, and apricots

[P.549A]

262 252 are all eaten raw, or dried, and prepared for food by stewing. Squashes are either boiled or roasted, the latter most skillfully, the seeds being carefully preserved, dried, and made into food, much the same as the sunflower seeds.

263 A remarkable and at first unpleasant characteristic of all these foods is the absence of salt from them. Sometimes the corn preparations are sweetened by chewing and fermentation. The somewhat sweet fruit of the datila, or Spanish bayonet, is rendered sweeter by a [251] like process, the pulp thus formed being spread out on large, closely-woven splint screens, and dried in sheets, often several feet in extent, though less than half an inch in thickness. The mescal of the 252 more southern tribes, the ak-na of the Zuñis, is prepared in its greatest perfection by the Ha-va-su-paí from the heart and inner leaves of the agave, or century plant. It is gathered by the women in great quantities throughout the gorges and upon the terraces of the cañon, and [482] transported in large baskets, strapped across their foreheads, to the gravelly beds of dry streams. Pits being dug in the gravel and fuel collected by the men, huge fires are built in the excavations, and kept burning for several hours. The embers are then drawn forth, the pits lined with leaves and grasses, and the agave thrown in, a layer like the lining then being added, and the heated gravel and embers heaped above. These [527] burnings are occasions of great festivity and merry-making. When taken out, the agave is easily made into pulp, and dried, either on the flat rock surfaces or as is the fruit of the datila.

221 262 It is a remarkable fact that the Ha-va-su-paí, possessing neither cattle nor sheep, are almost exclusively vegetarians during the summer months. With the beginning of winter, however, the tribe, almost as a unit, repairs to the surrounding plains, where they subsist 262 chiefly on the flesh of the game they kill. This is made ready for consump-

262 tion variously, — by roasting, broiling, frying, baking, boiling, or drying. No part of the animal is wasted; blood, intestines, even visceral glands and organs, as well as the half-digested vegetable matter from the stomachs of the deer, antelope, and rabbit, being utilized as food. The liver is frequently eaten raw, immediately on the death of the animal.

412 Their implements for preparing food are few. The muller, or rubbing-stone, and the metlatl, or mill, of sandstone or volcanic rock, and various in size, flat transversely, and concave from end to end, placed upon a skin, are used for grinding; while large, round, closely-woven trays of basket work, coated with mineral asphaltum and earth, make excellent roasting pans. Earthen pots and [439] brass kettles, procured by barter with 415] the Moquis, serve as cooking vessels. Moqui bowls and native baskets are used in serving food, which is dipped [264] from the cooking pot with large ladles of horn or wood, and eaten either with the fingers, flat sticks, or little wooden 415 and horn spoons. Large panniers, slung over the forehead or shoulders with a 482 broad strap of raw-hide, are used in collecting food, or carrying it to and from the distant granaries; and certain huge, small-necked, round-bottomed basket bottles serve as canteens and water-jars. 412 Knives of band-iron, occasionally of good [177] steel, have displaced, save in rare instances, the original flint instruments, as have also chisel-shaped fragments of iron or steel, inserted into wooden handles, like primitive stone axes, supplanted the scarcely ruder prehistoric implement. Sharpened bone or hard-wood splints and bits of stray wire make awls and needles; and sharp bone, or chipped discs of rock, their skin-dressers. Various stone hammers and mauls, with flat stones used about the fire, complete the limited yet all-sufficient list of Ha-va-su-pai household appliances.

In their agricultural operations and in the excavation of mescal pits, rude hoes,

The/99 cont./
131 inaccessibility of their cañon home has tended to keep them
177 immune from outside influences, so that in many ways their
342 life is still delightfully primitive. Their typical dwelling consists of a framework covered with brush or tule and sometimes with an outer covering of earth. In summer a four-post brush shelter is erected, which affords protection from the sun and allows free circulation of air.

262 The agave plant, cut and prepared in much the same way as by the Apache, has always been an important article of food among these people. Other native vegetal foods are grass seeds
224 and piñon nuts. From time immemorial the Havasupai have
[221] been hunters. On the approach of winter they left the cañon for the upper levels, built wickiups of boughs and bark, and spent the cold season in hunting. Deer were the principal game, although they killed some mountain sheep and an occasional black
[251] bear. Much of the venison was cut in thin strips and dried for
237 summer use. Deerskin dressed by the Havasupai was considered
281 the best by all neighboring tribes; consequently, it not only
[439] furnished clothing, but was an important medium of barter. But the life of the Havasupai has changed. Game is scarce, and
177 224 the Government does not willingly grant them permission to
648 hunt on the surrounding mesas, hence there is little wonder that the wrinkled veterans long for the old days when game was plentiful and they hunted where they would. "Now all is changed," they say. "We cannot go out of the cañon without asking the white man. We dare not hunt deer, as the game must be saved for the Háiko. We are no longer men; we are like little children; we must always ask Washington!"

241 Corn is now their chief staple, besides which they raise
262 beans, squashes, melons, pumpkins, sunflowers, peaches, apricots,
171 and figs. They prepare corn in countless ways, corresponding
252 largely to those of the Hopi. In fact, the modes of preparing corn by all tribes of /100/ the Southwest are much the same. Much of the crop is allowed to ripen on the stalk; this is later ground into meal on the metate. Quantities of green corn are harvested, roasted in large pits with the husks on, and hung to dry. This may be ground or simply shelled and cooked, either alone or with beans, meat, and dried squash. Like the figs, their

It was considered improper for shamans to request payment for their services although relatives of the patient usually proferred gifts within a month of the treatment. Tanned buckskin, Navajo blankets, or food were typical gifts. It would appear from our data that the shaman considered this an act of good will rather than specific payment for his "professional services." 756

Weather shamans had less power; usually they did not acquire a spirit. Spier (1928, 281) noted that they "obtained power by dreaming of clouds, thunder, lightning, and of great rain and hailstorms." Rock Jones dreamed of clouds that talked to him. He could see the clouds but could not feel them. He could call them to come near, but only if he was alone. Later, when he became a curer, the same clouds helped him to cure spider and snake bites. Weather shamans did not dance for rain. They sang alone, sometimes before an audience. 756 789 [787]

Before Rock Jones died he didn't leave his cloud power to anyone. The Havasupai have not had a weather shaman since, although our shaman informant believed the power could still come to one of Jones' descendants. Another informant, however, referred to Rock Jones as a malevolent person who had witched and killed many people. Upon his death, his power was consigned to the Yavapai, enemy people, so that it could never return to harm anyone.

Game shamans also were known to the Havasupai. Before extended hunting forays, the shaman would sing special songs calculated to quiet deer and prevent them from running when hunters approached. These were sung at night and repeated four times. Content involved not only information about the habits of the animal, but also that the hunters were sorry for killing the game they needed to assuage their hunger. Locations the hunters intended to visit were also mentioned. Successful hunters frequently prayed to the sun to shine brightly so the deer could be seen. The sun was thought to "own" the animals. 756 224

Game shamans could lure only certain species. Čik pániga, one of three remembered by our informants, was thought to have power over deer and mountain sheep, but not antelope. (Interestingly, while antelope abounded in the upland regions of Havasupai territory, they were hunted only in time of dwindling food supplies. There existed a belief that if antelope hair got on the meat it would bring stomach cramps to the eater.) None of these men were curers. They gained their power through dreaming of specific animals and were not instructed by other shamans. Following a successful hunt, the game shaman usually was given a hind quarter or a section of the ribs, but this was not mandatory. [262] [825] [753] [787]